

downloaded to the mobile communication device, so that “location-to-service” matching procedures can be performed locally, within the mobile communication device. Thus, in Rankin’s solution, network traffic normally takes place only once for each location when service/map dataset is downloaded to the mobile communication device whenever it reaches a new location. Rankin suggests that after this initial download, all of the computing, for a particular location, should be performed within the mobile communication device. This is why Rankin calls his solution as “ ‘Distributed’ Location Based Service System”. On the other hand, in Rankin’s prior art, which uses centralized location-to-service-matching approach, there is a constant need for network traffic between all elements of LBS system as depicted in Rankin’s Fig. 1. “The matching operation increases network interaction for the mobile device, thereby causing increased latency in transactions between network and mobile device, increased network traffic, and a decreased ability to provide push services”. (See Rankin, Col. 1, lines 32-36)

Fortunately, the applicant’s solution does not need Rankin’s “distributed” approach, because applicant’s invention uses Cell ID as the location determining parameter, which is known through out the cellular network system. Thus, the actual network traffic occurs only five times a day, when actual notification is pushed, from central application server, to the mobile device. In this way, applicant’s invention is more similar to Rankin’s prior art. However, due to the usage of Cell ID as location parameter, the network traffic, in applicant’s invention has been kept to a minimum and it has negligible effect on network latency. Hence, the applicant’s solution does not need Rankin’s “distributed” approach, and Rankin’s solution should be considered irrelevant for the purposes of examining applicant’s invention.

Detailed arguments in favor of the applicant’s claims:

The purpose of Rankin’s invention is to reduce network traffic, which is caused due to centralized approach for location-to-service matching, as employed by Rankin’s Prior Art, depicted in Rankin’s Fig1. Describing “Background of the invention” Rankin states the problem as “The matching operation increases network interaction for the mobile device, thereby causing increased latency in transactions between network and mobile device, increased network traffic, and a decreased ability to provide push services.” See Col. 1 lines 32-36.

In order to solve this “latency” problem, Rankin suggests a “distributed” approach for the vital operation of “location-to-service-matching”. This is why “distributed” is the first word in Rankin’s invention title. Thus this keyword “distributed” should be kept in mind while understanding Rankin’s invention.

Rankin suggests that “Information regarding resources available at the location of the mobile communication device may be downloaded to the device, without a request from the device, whereby the processor can process the information and processed information is made available at the output element “ See Col.2 Lines 20-22.

Rankin also requires that “The mobile communications device contains a location determination system which allows the device to determine its location either from the network or independently from the network” See Col. 1 Lines 61-64.

These two steps are necessary because Rankin solves the problem of increased network traffic, by performing all of the “location-to-service-matching” operation, within the mobile communication device. This is depicted in Rankin’s Fig 4. whereby Block S2 (titled “DOWNLOAD TO MOBILE DEVICE”) is the only link between LOCATION RESOURCE SERVER 103, and MOBILE COMMUNICATION DEVICE 100. Thus it can be said that “download” is the second keyword in Rankin’s solution. This means that without distributed approach for location-service-matching and without downloading resources datasets to mobile device, there could be no Rankin’s solution.

However, in order to do all this, the mobile communication device has to be a very capable machine, which is also accepted by Rankin as “In essence, the invention provides a mobile device which is fundamentally autonomous by determining its location and comparing that information to a database held on the device. This feature of the present invention facilitates very rapid interaction with local services.” See Col.2, Lines 10-15.

Contrarily, applicant’s invention uses a “dumb” mobile device without any location determining system, and it does not perform any computing, nor does it store any database.

Indeed, as the mobile device 100, moves from one location to a new location, a new dataset pertaining to the new location will have to be downloaded from Location Resource Server 103. This download can either be triggered by the mobile device (See Col. 1, Lines 64-67) or “without a request for information from the device”. In both cases, a download of dataset from Resource server to Mobile device will have to take place. Now, this “triggering” of huge download of service/map dataset in Rankin solution, should not be confused with the “very short & precise” pushed notification in applicant’s invention, which causes only minimal traffic. Moreover, in applicant’s invention, a change of location, does not trigger any download, whatsoever, and only the value of Cell ID is changed throughout the relevant cellular network.

Doulton:

Doulton et al., (U.S. 4,512,667) (hereinafter Doulton) is a stand-alone system, whereby all computations have to be performed within the portable device. In this way Doulton is similar to Rankin, because not only “location determining element” but the timings-calculation-algorithm, as well, are primarily resident on the portable device.

Combination of Doulton & Rankin will result into a portable device which has location determining element and some algorithm to determine azaan timings, however it does require some additional information which is downloaded from a remote server. This download is triggered by a plurality of conditions, mainly caused due to change in mobile device’s location. All of this requires Rankin-Doulton combination to be a very capable & intelligent portable device. Even without having to download additional data, the device itself will have to determine it’s location and perform computation on the location parameter, according to the preferred juristic method of calculation.

Contrarily, applicant’s invention can do equally well with a “dumb” mobile device, which does not need to have any location determining element, nor does it need to perform complex timings calculations according to stored user preferences.

Conclusion of arguments on Rankin & Doulton :

Still, unfortunately, Rankin appears in top few of every search carried out in connection with applicant’s invention, but this is how search engines work. It happens to be so that applicant’s invention uses centralized LBS approach of Rankin’s prior art, and while discussing several embodiments, Rankin has mentioned all the terminology of his prior art. Naturally, for a search engine, this gives enough similarity to put Rankin, at the top of search results, but for a human being, it will take just few minutes of thorough perusal to judge that Rankin’s solution is actually, irrelevant to applicant’s invention.

Incidentally, in the “FINAL” office action, while rejecting applicant’s claims 1-11, several lines have been quoted, out of context, from Rankin. A closer look at these lines will reveal that in these lines Rankin has been describing his prior art, in the new context of his invention of “distributed” computing approach. So, whatever lines have been quoted, from Rankin, are actually common practices, from Rankin’s prior art of centralized location based services.

Interestingly, Rankin’s prior art dates back to as early as 1996, which is about the time when the idea of location based services (LBS) gained popularity. However,

during the whole of last decade, nobody thought of combining LBS with Doulton (1982) or similar Muslim-prayer-solution, **because the combination is not obvious to a person having ordinary skill in the art.**

Moreover, the applicant's invention uses Cell ID, to determine timings of Muslim prayers. Now, this parameter of Cell ID is as old as the concept of cellular telecommunication system, which may date back to mid 1980s. Interestingly, during these two decades of cellular telephony, nobody ever thought of using Cell ID to determine timings of Muslim prayers **because this usage is not obvious to a person having ordinary skill in the art.**


Conclusion:

For all of the above reasons, applicant submits that the application is now in condition for allowance, which action applicant respectfully solicits.

Conditional Request for Constructive Assistance

If, for any reason this application is not believed to be in full condition of allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P S 2173.02 and S 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully



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Certificate of Mailing: I certify that on the date below this document and referenced attachments, will be deposited with the U.S. Postal Service as first class mail, in an envelope addressed to: Mail Stop RCE , Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

2006 March 28

A handwritten signature in black ink, appearing to read "Qirfiraz", written over a horizontal line.

Qirfiraz Ahmed Siddiqui, Applicant

Attachments:

- (i) Duly filled RCE Transmittal form PTO/SB/30.
- (ii) Petition of Extension of time, under 37 CFR 1.136(a).
- (iii) Form PTO-2038 for payment by credit card, for RCE fee under CFR 1.17(e).